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Social and Literacy Development of School-Based Pre-Kindergarten Students

Stewart Smirthwaite

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SOCIAL AND LITERACY DEVELOPMENT OF SCHOOL-BASED
PRE-KINDERGARTEN STUDENTS

by

Stewart Smirthwaite

A Dissertation
Submitted to the Graduate School,
the College of Education and Human Sciences
and the School of Education
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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ABSTRACT

In order to meet the demands of college and career ready standards, students are expected to enter kindergarten knowing more than ever before. A need exists to examine data that provides evidence of desired social and literacy outcomes for students in kindergarten. In order to address the need for further study of school prekindergarten opportunities for young children, two different sets of data were collected, examined, and discussed. Literacy proficiency was measured by using data from the Mississippi K-3 Assessment Support System's (MKAS²) Kindergarten Readiness Assessment (KRA). Social competence was measured using the Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System (BASC-3 BESS). Data was collected via a digital spreadsheet file containing de-identified student information along with the scores for the academic and behavior screening. The digital spreadsheet file also included level of prekindergarten, student ethnicity, and gender.

The results of the study did not reveal a statistically significant difference on literacy achievement based on the location of preschool services in which a student participated. Additionally, no significant difference was found on social competence risk factors based on the location of preschool services in which a student participated. However, African American and Hispanic students who attended a public school prekindergarten did outperform their counterparts who did not attend a public school prekindergarten.

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DEDICATION

This dissertation is dedicated to my always supportive and amazing wife, Sally Smirthwaite. Her encouragement and love have sustained me through this sometimes grueling process from start to finish. Whether making sure our children's needs were met while I spent 1-2 evenings a week trekking to Hattiesburg or giving me quiet time to write, she has been my rock.

Also, I must recognize the contributions that my mother and grandparents had on my personal development and my professional career. My grandfather, Carl Fincher, was a school and district administrator who always set the standard for ethical and moral leadership. I know he is celebrating with me from heaven. My grandmother, Marilyn Fincher, and my mother, Mary Sheets, have always been my biggest fans from the day I was born. Both of these women are paragons of love and support who have contributed so richly to the tapestry of my life.

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LIST OF ABBREVIATIONS

BASC-3 BESS	Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System
ESSA	Every Student Succeeds Act
KRA	Kindergarten Readiness Assessment
MKAS ²	Mississippi K-3 Assessment Support System

CHAPTER I - INTRODUCTION

In order to meet the demands of college and career ready standards, students are expected to enter kindergarten knowing more than ever before. The Every Student Succeeds Act (ESSA) places emphasis on providing access to high quality preschool education to all children so that students are prepared as they enter Kindergarten (U.S. Department of Education, 2015). Children who are not enrolled in preschool will not be as successful as those who are (Boyle, 2013). In their 1998 position statement, The National Association for the Education of Young Children and the International Reading Association put forward the notion that waiting to give children literacy experiences until they are school-aged can negatively impact attainment of reading and writing skills. Therefore, it is imperative to provide students with a high quality preschool education. Pope (2010) recommended that her study be replicated using kindergarten students from other regions to compare the effects of prekindergarten on kindergarten achievement.

Statement of the Problem

Large achievement gaps are present due to socioeconomic factors stemming from the level of access to high quality preschool. Curran (2017) found that many students lacked the appropriate skills to be successful in kindergarten due to environmental factors that are present when families face economic hardships. Moreover, the National Center for Education Statistics (2019) found that parents enroll children in preschools at a higher rate with the more education a parent has attained. Parents with a bachelor's or graduate degree had the highest level of enrolling their children into preschool (47 percent) as opposed to those parents with less than a high school credential (26 percent). Barnett and

Belfield (2006) hypothesized that increasing preschool investment could raise social mobility.

While access to preschool is important, the quality of preschool can be erratic due to many different types of preschool and varying regulations depending on state and setting. Garmon (2013) studied the effects of a high-quality universal prekindergarten on students of all backgrounds and found that children who participated in public prekindergarten scored higher on the 3rd grade state reading test than children who attended private preschool programs or children who did not attend prekindergarten programs.

School districts incur a great expense in providing school prekindergarten opportunities for young children. A need exists to examine data that provides evidence of desired social and literacy outcomes for students in kindergarten. Literacy proficiency will be measured by using data from the Mississippi K-3 Assessment Support System's (MKAS²) Kindergarten Readiness Assessment (KRA). Social competence will be measured using the Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System (BASC-3 BESS).

Research Questions

The following research questions will be addressed:

- a. Is there a significant difference in literacy among kindergarten students who participated in a public school based prekindergarten as compared to their peers without public school prekindergarten as identified on the KRA?

- b. Is there a significant relationship between the social competence of kindergarten students based on preschool setting type as identified on the BASC-3 BESS?
- c. Is there a significant relationship between literacy and social competence of kindergarten students based on preschool setting experience?

Definition of Terms

Listed below are definitions for terms that will be used in this study which may be unique to the context of this study.

Daycare – A traditional community or church based childcare facility

Developmentally appropriate—an approach to teaching grounded in the research on how young children develop and learn and in what is known about effective early education. (National Association for the Education of Young Children, 2009).

Early intervention— techniques that address cognitive development and low achievement before school failure occurs.

Head Start – A U.S. Department of Health and Human Services program that promotes school readiness of children under 5 from low-income families through education, health, social and other services (Office of Headstart, 2019)

Home – A type of preschool setting where students are at home with a parent or in the care of family; not participating in an outside daycare setting

Response to Intervention— The Center on Response to Intervention (n.d.) defines RTI as a three-tiered, proactive prevention system with different degrees of intensity at each tier.

Title I – the section of the Elementary and Secondary Education Act of 1965 that focuses on improving the academic achievement of the disadvantaged.

Delimitations

This study examined 358 students in one coastal school district spread among ten elementary schools during the 2017-2018 school year. The research is focused on the social development and literacy development of kindergarten students enrolled in this school district. Data from the Mississippi K-3 Assessment Support System (MKAS²) will be collected to determine the literacy proficiency in the students. Data from the Behavior Assessment System for Children, Third Edition (BASC-3) will be collected to determine social competence. The study is restricted to this specific set of students so future researchers should use populations with demographics and that are similar to this sample.

Assumptions

The researcher assumed that teachers will complete the BASC-3 with fidelity on each kindergarten student. Additionally, the researcher assumed that the students completed the MKAS² at a level commensurate with their abilities.

Justification

The purpose of this study was to examine the efficacy of prekindergarten when funded and supported by a local school district. Proponents of prekindergarten tout the fact that schoolprekindergarten programs lead to greater outcomes for students in later elementary and secondary educational careers (Garmon, 2013; Gormley & Phillips, 2005; Skibbe, Hindman, Connor, Housey, & Morrison, 2013).

Moreover, although learning is a lifelong process, the brain is most sensitive to positive and negative experiences early in life (Sripada, 2012). While the literature surrounding various prekindergarten and preschool programs is voluminous, the scholarship is not as settled when examining small-scale public school district-run prekindergarten initiatives.

This study is important because a high-quality, early education sets children on the path to educational and economic success. In 2013, the Mississippi Legislature passed the Early Learning Collaborative Act which marked the first-ever state-funded pre-K program in Mississippi. This bill provided \$3 million to 11 collaboratives around the state--10 of which were school districts (Mississippi First, 2016). If this study could provide evidence that the outcomes for students receiving public school based prekindergarten are greater than outcomes for students from other modes of preschool, or none at all, that evidence could be used as an impetus to achieve more funding for the early learning collaboratives around the state. More funding would mean more preschool aged children would have access to high quality prekindergarten at their local public school.

The theoretical basis for the study is threefold: child development, emergent literacy, and brain research. Bronfenbrenner (1994) developed the ecological systems theory to explain how everything in a child's environment affects how he/she grows and develops. When children adapt to a new environment, how they relate socially and emotionally to others is based on the previous understanding they have developed in their microsystem (family) and extends to each new relationship (Bronfenbrenner, 1994).

Emergent literacy skills represent the developmental precursors to conventional reading and writing skills. Traditional studies of literacy development often begin when a student enters formal schooling, but emergent literacy looks at the development of literacy skills as a continuum with origins in a child's early life (Lonigan, 2006). Developing literacy skills is an ongoing process from birth and students should have foundational skills well before entry into the formal school setting (Garmon, 2013). Fostering emergent literacy skills is a complex task that "requires strong content knowledge, an understanding of how these skills develop in young children, as well as the use of evidence-based, high-quality instructional practices" (Cunningham, Etter, Platas, Wheeler, & Campbell, 2015, p. 62).

According to the Center on the Developing Child (2007), neuroscience research provides an impetus for beginning programs at birth, and even prenatally, for children who are at high risk for academic struggles. One area of brain research with implications for early learning is the study of executive functioning. Fischer (2012) defined executive functioning as the skills for regulating one's own behavior. These skills can be taught--especially to preschool aged children. The intentional teaching of these skills is imperative for children who have had especially stressful home lives with little opportunity to learn self-regulation (Fischer, 2012).

CHAPTER II –REVIEW OF LITERATURE

Introduction

The purpose of this study was to use student literacy performance and social competence risk factors at the end of kindergarten to determine whether a statistically significant difference in literacy or social performance was present based on location of preschool services in which a student participated. The groups who were studied are students who attended a public school prekindergarten class, students who attended a private preschool/daycare, students who attended a Head Start program, and students who were in the home and had no preschool experience. The research questions are: (a) Is there a significant difference in literacy among kindergarten students who participated in a public school based prekindergarten as compared to their peers without public school prekindergarten as identified on the KRA? (b) Is there a significant relationship between the social competence of kindergarten students based on preschool setting type as identified on the BASC-3 BESS? (c) Is there a significant relationship between literacy and social competence of kindergarten students based on preschool setting type?

Theoretical Foundation

Child Development

Bronfenbrenner (1994) developed the ecological systems theory to explain how everything in a child's environment affects how he/she grows and develops. He identified four levels of systems that have an influence on a child's development: the microsystem, the mesosystem, the exosystem, and macrosystem. The microsystem refers to the family or classroom. The mesosystem links microsystems together (i.e., home and school). The exosystem links two or more settings together where one of the settings does not directly

affect the developing person (i.e., for a student, the relation between the parent's workplace and home). The macrosystem "may be thought of as a societal blueprint for a particular culture or subculture" (Bronfenbrenner, 1994, p. 40).

When children adapt to a new environment, how they relate socially and emotionally to others is based on the previous understanding they have developed in their microsystem (family) and extends to each new relationship (Bronfenbrenner, 1994).

According to Nelson, Kendall, & Shields (2014), environmental influences are important because:

children's behavior, capacity to learn, and attitude to health are not purely a matter of choice; rather are shaped in a social surround of regulation by others, and the social surround is shaped not only by the history of the family but also by the society. (p. 247)

Logue (2007) wrote that social development occurs best when children develop relationships and feel safe in their environment.

Emergent Literacy

Emergent literacy skills represent the developmental precursors to conventional reading and writing skills. Traditional studies of literacy development often begin when a student enters formal schooling, but emergent literacy looks at the development of literacy skills as a continuum with origins in a child's early life (Lonigan, 2006). Developing literacy skills is an ongoing process from birth and students should have foundational skills well before entry into the formal school setting (Garmon, 2013).

The National Association for the Education of Young Children and the International Reading Association (1998) released a position statement on

developmentally appropriate practices for young children argues that experiences throughout the early years affect the development of literacy. The statement supports the notion that waiting to give children literacy experiences until they are school- aged can negatively impact attainment of reading and writing skills. Children need intentional language development practice because when they enter kindergarten, their language development is still a work in progress (Dickinson & McCabe, 1991).

Hilbert & Eis (2014) wrote that "assessing, monitoring and supporting the development of emergent literacy in preschool years is important to the development of more formal reading skills later in life" (p. 112). According to Brown (2014):

Learning to read is a developmental process. Most children follow a similar pattern and sequence of reading behaviors as they learn how to read: from appreciation for and awareness of print to phonological and phonemic awareness to phonics and word recognition. Foundation skills are reading skills that students typically develop in the primary grades. The skills and behaviors that develop early serve as the base for later competence and proficiency. They are the building blocks that children learn to utilize to develop subsequent, higher-level skills to become proficient readers. (p. 35)

Fostering emergent literacy skills is a complex task that "requires strong content knowledge, an understanding of how these skills develop in young children, as well as the use of evidence-based, high-quality instructional practices" (Cunningham, Etter, Platas, Wheeler, & Campbell, 2015, p. 62). Stahl and Yaden (2004) wrote that students need supportive adults to assist them with practicing literacy and fluency skills in order to decode words with automaticity. This automaticity facilitates comprehension in texts that

they read because the student's attention is focused on understanding the text rather than decoding the words (Stahl & Yaden, 2004). Students from underprivileged backgrounds may start school at a disadvantage due to the lack of a supportive adult (Stahl & Yaden, 2004).

Invernizzi, Landrum, Teichman, and Townsend (2010) found that children develop literacy skills at different rates. Invernizzi et al., (2010) described variables in development including environment, opportunity, book and language exposure, and access to early childhood programs. The foundations of good reading remain the same regardless of background, special needs, or gender (Brown, 2014).

Brain Research

Early childhood is a crucial time for academic and social development in children. Advances in technology have allowed researchers to make connections between past theory and current brain research (Wasserman, 2007). Although learning is a lifelong process, the brain is most sensitive to positive and negative experiences early in life (Sripada, 2012). According to the Center on the Developing Child (2007), neuroscience research provides an impetus for beginning programs at birth, and even prenatally, for children who are at high risk for academic struggles.

One area of research with implications for early learning is the study of executive functioning. Fischer (2012) defined executive functioning as the skills for regulating one's own behavior. These skills can be taught--especially to preschool aged children. The intentional teaching of these skills is imperative for children who have had especially stressful home lives with little opportunity to learn self-regulation (Fischer, 2012). Diamond, Barnett, Thomas, & Munro (2007) hypothesized that instructing students in

ways that improve executive functioning may have short- and long-term benefits (i.e., reducing the need for costly special education services). Cartwright (2012) noted that a great deal of research on executive function (EF) in the brain focused on students with disabilities and adults with brain trauma, but that EF plays an important role in the early reading development of all children. Moreover, since frontal lobe development occurs around the same time children begin school, EF likely plays a crucial role in the successful transition of children into school (Riggs, Jahromi, Razza, Dilworth-Bart, & Mueller, 2006).

Another area of brain research that has been studied extensively is brain plasticity. Twardosz (2012) wrote that "brain plasticity encompasses numerous areas of neuroscience research, including the role of experience in shaping the developing brain and the changes in structure and function that accompany learning and memory throughout life" (p. 96). According to the Harvard University's Center on the Developing Child (2007), plasticity is at its maximum in childhood and decreases with age. The Center on the Developing Child went on to report that

Although "windows of opportunity" for skill development and behavioral adaptation remain open for many years, trying to change behavior or build new skills on a foundation of brain circuits that were not wired properly when they were first formed requires more work and is more expensive. (p. 10)

Historical Foundations of Preschool

Pre World-War II

The focus of having students in settings outside of the home prior to admittance in formal elementary school can be traced back to the mid-to-late nineteenth century. Wollons (2009) wrote that during this time, preschools in the United States had two tracks. The first was geared to middle-class children whose parents believed in the value of an educational jump start. These were the predecessors to today's early childhood education programs (Cohen, 1996). The second track was aimed at the children of immigrants and the poor, who, it was believed at the time, needed to be Americanized and controlled (Wollons, 2009). Cohen (1996) stated that "these services were typically organized by philanthropic institutions, private individuals, community service organizations, or settlement houses and were supported by modest parent fees, private contributions, and, in some instances, state funds" (p. 27).

World War II

During World War II, with many women into taking on factory work to replace their deployed husbands, a lack of childcare options presented a challenge (Marks, 1943). Communities handled these challenges in several different ways. Some local school districts provided space and resources for daycare programs. In other communities, the Child Protection Program of the Work Projects Administration provided nursery schools. However, in 1943, when these funds were no longer available, communities were forced to look elsewhere for funding to continue the programs (Marks, 1943).

One avenue for funding was the Lanham Act, named for U.S. Representative Fritz Lanham of Texas. The Lanham Act (formally known as the Defense Housing and Community Facilities and Services Act of 1940) was passed in "order to fund public works, including child care, in communities with defense industries" (Stevenson, 2015, para. 2). Under this legislation, all families were given opportunities to send children to high-quality six-day-a-week childcare for what amounts to \$9-\$10 a day in 2015 dollars. Many of these programs were considered high quality because the centers provided meals, low student-teacher ratios, and had arts and enrichment activities (Stevenson, 2015).

As World War II wound down and men returned home to resume their jobs, many of these programs went away. Cohen (1996) wrote that the temporary need for female labor in war factories did not change society's prevailing views that women belong in the home raising children. As a result, when the federal funds dried up, a majority of the centers closed.

Head Start

It was almost two decades before the federal government began committing dollars to the education of preschool aged children. Head Start was founded in 1965 as part of President Lyndon B. Johnson's War on Poverty. Zigler and Syfco (2000) noted that Head Start began as a 6 to 8 week program for poverty-stricken children before they entered elementary school with the idea that "some educational and social experiences might have a positive but small effect" (p. 68). Moreover, Cohen (1996) wrote that "Head Start was premised on the notion that early childhood education could have a substantial impact on poor children's later success" (p. 31). However, with the hasty implementation

and large scope of Head Start, problems arose. Many of the initial promises were oversold and subsequent studies showed the effects of Head Start wearing off after a few years. Consequently, the dubious quality of many Head Start programs led initial planners to proclaim that as many as one third of all centers should be closed (Zigler & Syfco, 2000). Cohen (1996) summarized the federal involvement in early childhood education with the following statement:

Over the past 60 years, the federal government has provided funding for child care and early education programs in fits and starts. Funding has fluctuated in amount and purpose, with the result that today's childcare financing system is a confused collection of funding streams with no uniform goals, standards, or administrative structure. (p. 26)

Model Early Childhood Programs

The High/Scope Perry Preschool Program

The High/Scope Perry Preschool Program was founded in the 1960s to improve personal and economic opportunities for a select group of three- and four-year-old students in Ypsilanti, Michigan (Nores, Belfield, Barnett, & Schweinhart, 2005). For this study, 123 low-income African-American children were randomly divided into one of two groups—one that participated in comprehensive preschool program and a second group that did not participate in an early childhood program. Schweinhart, et al., (2005) wrote that when data were collected on the previous Perry students at the age of 40, the results demonstrated that "high-quality preschool programs for young children living in poverty contribute to their intellectual and social development in childhood and their

school success, economic performance, and reduced commission of crime in adulthood" (p. 5).

The Abecedarian Project

Campbell, Ramey, Pungello, Sparling, & Miller-Johnson (2002) described the Abecedarian Project as a longitudinal prospective study on 111 infants which looked at the benefits of early childhood educational intervention within a childcare setting.

Campbell et al. (2002) followed up with 104 of the original 111 students when these students turned 21. They found that:

Individuals assigned to the preschool treatment group had, on average, significantly higher cognitive test scores as young adults than did untreated controls, they earned higher scores on tests of reading and mathematics skills, they attained more years of education, they were more likely to attend a 4-year college or university, and they were less likely to become teen parents. (p. 52)

The Chicago Child-Parent Centers

The Chicago Child-Parent Centers are a Title I program that provides child education and family support services from preschool through second or third grade at 20 sites in Chicago's poorest neighborhoods (Temple, Reynolds, & Miedel, 2000). Upon comparing the students who received the intervention with students who did not receive the intervention, Temple et al. (2000) found that participation in the intervention was "associated with a 24% reduction in the rate of school dropout and that participation for 5 or 6 years was associated with a 27% reduction in the rate of early school dropout relative to less extensive participation" (p. 31).

Current State of Prekindergarten

According to the National Institute for Early Education Research (2014), 29% of American 4-year-olds are enrolled in a state-funded prekindergarten program. When combined with general education, special education, and Head Start, 41.5% of 4 year olds are served in publicly funded prekindergarten programs. In the 2013-2014 school year, state funding increased by \$116 million, which was the second year in a row of large increases. However, these increases follow huge cuts of \$500 million in the 2011-2012 school year due to factors related to the economic recession. Forty states plus Washington D.C. offer some sort of prekindergarten program throughout the school year (NIEER, 2014). States that offer state-supported universal prekindergarten include Oklahoma, Georgia, Florida, West Virginia, New York, and Illinois while the District of Columbia, New Jersey, and California have limited programs (Schaub, 2009). Some have raised concerns about the cost-effectiveness of universal prekindergarten and, in the absence of nationwide performance standards, universal prekindergarten is difficult to mandate (Scott-Little, Kagan, & Frelow, 2006). However, in an era of heightened accountability requirements, prekindergarten has become a crucial approach to close gaps in achievement and to get children ready for elementary school (Center for Public Education, 2007).

Justification for Prekindergarten

With the increasing expectations on kindergartners under the Common Core State Standards, access to high-quality pre-k instruction has become imperative for student success in kindergarten and beyond. Barclay (2013) wrote that the unprecedented attention to reading in lower grades brought about by the Common Core State Standards

is forcing schools to reconsider how instructional time is spent. Prekindergarten can provide the necessary scaffolding of skills between preschool/daycare and kindergarten. Moreover, the research has consistently found that attending some kind of preschool leads to better readiness for kindergarten (Barnett & Belfield, 2006; Gormley & Phillips, 2005; Zhai, Waldfogel, & Brooks-Gunn, 2013; Pope, 2010).

The Center on the Developing Child (2007) wrote that, when examining the costs and benefits of funding prekindergarten, most of the returns were from decreased expenditures "in the juvenile and criminal justice systems, decreased special education costs, increased tax revenues from higher incomes, and decreased reliance on government assistance" (p. 19). There is research that suggests expanding opportunities for early learning can provide society with a return on investment of \$8.60 for every \$1 spent (White House Council of Economic Advisors, 2015).

Longitudinal studies conducted as part of the Perry Project, Abecedarian Project, and the Chicago Child-Parent Centers have all found long-lasting positive outcomes for students who went through their respective programs. In a study of Georgia's long-running prekindergarten program, Peisner-Feinberg, Schaaf, Hildebrant, and Pan (2015) concluded the following:

- Children made significant gains on almost all measures during pre-k, including all domains of learning.
- Children who were Spanish-speaking dual language learners showed gains on all skills in English and most skills in Spanish.
- Beliefs about teaching practices was the most consistent factor predicting differences in classroom quality (p. 2).

Garmon (2013) studied the effects of a high-quality universal prekindergarten on students of all backgrounds and found that children who participated in public prekindergarten scored higher on the 3rd grade Georgia state reading test than children who attended private preschool programs or children who did not attend prekindergarten programs.

Preschool Quality

Preschool quality is affected by certain components, such as room layout, staff-child ratio, and number of children in the classroom (Ackerman & Barnett, 2005).

Ackerman and Barnett (2005) went on to write that quality also depends on the kinds of experiences children have within the classrooms on a day-to-day basis.

Magnuson, Ruhm, & Waldfogel (2007) studied the effects of class size and the level of academic instruction provided. Their findings suggest that the gap in preschool as compared to no preschool is quickly eliminated in kindergarten if a student is placed in small classrooms with high levels of reading instruction. Conversely, the gap persists for students placed in large kindergarten classes with low levels of reading instruction.

However, Mashburn, et al., (2008) noted that mandating small class sizes and child-to-teacher ratios may not be sufficient to ensure that children are learning in classrooms or to make up for no prekindergarten.

Gormley & Phillips (2005) conducted a review of universal prekindergarten programs offered in Oklahoma. They found that the statewide program showed the success that a systemic, school initiative can have on the futures of four-year-olds in later elementary and secondary education. Minority children had dramatic gains in the language skills that can predict strong achievement in kindergarten. However, these effects were only found in full day programs rather than half-day programs. The half-day

programs did have minor effects on white children but were weaker than the effects on minority students. Motor skills gains were limited and there were no gains in socioemotional skills (Gormley & Phillips, 2005). Weiland (2011) highlighted that "a prekindergarten program that makes careful use of well-selected research-based curricula, combined with trained bachelors- and masters-level teachers and explicit supports for curricula implementation, profoundly and positively affects children's school readiness" (p. 11).

The findings from Reid and Ready's 2013 study showed that students from lower socioeconomic statuses (SES) and racial/ethnic minority children learned less, on average, than higher SES and White children during pre-K. This could be explained by the fact that higher SES/White children attend higher quality programs or already have greater language skills. Reid & Ready suggested that this points to a need for higher quality programs for minority and low-SES students. Skibbe, Hindman, Connor, Housey, and Morrison (2013) found that high-quality prekindergarten and kindergarten programs can provide children with skills that they need for success in later grades. Skibbe et al. (2013) explained that children demonstrate similar amounts of growth in prekindergarten and kindergarten, suggesting that the two school environments provided an equivalent benefit to children.

Literacy

Cunningham (2010) studied the relationship between the quality of the literacy environment and the performance of public preschool children. She found that having high-quality literacy instruction can help ameliorate the effects of being a low socioeconomic and/or minority student which can lead to greater future academic

outcomes. An integral component of literacy instruction is language interaction between students and teachers. Sylvester & Kragler (2012) highlighted the critical need for high-quality language interactions between children and teachers and noted that careful curriculum planning should be used to select activities that feature high-quality language interactions. The best preschools are focusing on how high-quality shared reading instruction affects students' language/literacy development (Zucker, Cabell, Justice, Pentimonti, & Kaderavek, 2013). Moreover, Zucker et al. (2013) noted that the effects of high-quality reading instruction in preschool carry through to kindergarten and possibly first grade.

Prekindergarten vs. Preschool

With the increase in state-funded prekindergarten enrollment from 738,000 in 2004 to 1.1 million nationally in 2014 (NIEER, 2014), the trend is moving towards publicly funded prekindergarten programs. In a November 2014 article in *The Atlantic*, Wong described prekindergarten programs as being government funded programs that include high standards such as qualified/degreed teachers, small class sizes, low student-teacher ratios, and high nutrition requirements. In contrast, Wong (2014) stated that the implications of the word preschool are that it is a daycare or nursery school which is focused on babysitting rather than educating.

The benefits of prekindergarten programs are many. Skibbe et al. (2013) noted that children who attended prekindergarten in the previous year had higher scores in the fall of the kindergarten year than did those who had attended preschool. Barnett & Belfield (2006) highlighted that the most effective preschool programs are school prekindergartens that have small class sizes and highly qualified teachers. The next most

effective preschool programs are state preschool programs with enforced standards, followed by Head Start programs. Family home daycare and more traditional daycare were last in effectiveness. Barnett & Belfield (2006) predicted that a greater investment in prekindergarten where all students are served could benefit society as a whole.

Lee, Zhai, Brooks-Gunn, Han, & Woldfogel (2014) noted that children who attended prekindergarten had better cognitive development than Head Start participants. They posited that this is possibly due to prekindergarten students having a more academically-focused environment. In their 2013 study, Forry, Davis, and Welti researched students who were dually enrolled in center-based preschool and prekindergarten services and found that these students were very likely to be ready for the literacy and numeracy challenges of kindergarten.

Teacher Quality

Teacher quality influences student achievement more than students' race, class, prior academic achievement, and school the child attends (Center for Public Education, 2006). The Center for Public Education (2006) went on to assert that this effect is particularly strong among low-income students and African American students. In that vein, Mashburn et al. (2008), cautioned that requiring teachers to possess a bachelor's degree or degrees in early childhood education may not be sufficient as the sole determinant for ensuring that children are learning in classrooms. However, preschool teachers that had attained a bachelor's degree were found to have held higher child-centered beliefs of a type that are associated with more positive social guidance while teachers with associate's degrees were more likely to focus on selecting negative emotional responses (Lang, Mouzourou, Buettner, & Hur, 2017). Regardless of

certifications, degrees, or class sizes, the quality of the interaction between teacher and student is of paramount importance for future outcomes of children (Mashburn et al., 2008).

Barnett & Hustedt (2003) noted that teachers in the public school prekindergarten setting are typically paid substantially more, are better educated, and have lower turnover than those in private preschools or Head Start programs. This leads to a quality vacuum wherein private preschool and Head Start programs are struggling to retain teachers because teachers are using those programs as stepping stones to get jobs in public school prekindergartens. This also has the effect of leading to higher quality teachers and better outcomes for students participating in the public school prekindergarten programs (Barnett & Hustedt, 2003). However, Lang et al. (2017) found no significant relationship between teachers being licensed and their belief in child development theories or their social and emotional responsiveness. They attribute this discrepancy to the fact that many teacher licensure programs are focused more on academics and instruction rather than how best to support the social competence of children.

Social Skills and Opportunities

Curby, Brown, Bassett, & Denham (2015) defined social competence as "the appropriate expression and regulation of emotions, along with the knowledge of different emotions, combined with being able to solve problems that come about in social situations" (p. 550). Pope (2010) noted that the area that has the greatest impact on kindergarten achievement is social skills competence. Moreover, research into social competence has found connections between social competence and increases in self-esteem and school readiness (Joy, 2015).

Mashburn et al. (2008) found that minimum preschool standards related to social and instructional interactions of children lead to better outcomes. They also reiterated the fact that establishing a class wherein high-quality emotional and instructional interactions are present will also lead to better outcomes for children. It is important to structure prekindergarten and preschool classes with the opportunities to explicitly teach self-regulation and social skills because students who do not have the necessary self-regulation skills prior to entering kindergarten have a higher chance of falling behind academically (Bodrova & Leong, 2005). There is disagreement among researchers about the effects of preschool on social/behavioral readiness once the student enters elementary school. Forry et al. (2013) noted that in their study, prekindergarten was not associated with children's social school readiness skills. Loeb, Bridges, Bassok, Fuller, and Rumberger (2007) found that while preschool attendance does have positive academic effects, it can also have negative behavioral effects (e. g., self-regulation skills). However, Gormley, Phillips, Newmark, Welte, and Adelstein (2011) demonstrated that state-funded pre-K programs can have a positive impact on students' social-emotional readiness for kindergarten.

Logue (2007) had the following to say on the quality of preschool and teaching of social skills:

High-quality programs are identified as those in which children learn many of the social skills that help them participate in a group as a cooperative member and learn to use adults to gain information and assistance. Low-quality programs are those whose graduates come to kindergarten without these advantages and may have actually practiced social behaviors that interfere with their adjustment and

success in kindergarten. Some children enter kindergarten with the self-control and social competence of three-year-olds; others come with the social knowledge and skills of older children. (p. 37)

Regardless of prior social opportunities or level of skills, public school students are placed in classes and must be taught the necessary skills to be successful in prekindergarten and beyond (Logue, 2007).

Parental Perceptions of Preschool Quality

Barbarin et al., (2006) conducted a study to find out how a representative group of parents understood the meaning of program quality. They explained that families focus on kindergarten readiness as vital to program quality. Moreover, when choosing a program for their children, "Whites more often relied on indicators of the classroom emotional climate, Latinos more often examined the provision of comprehensive services, and African Americans more often weighed the quality of home–school partnerships than their ethnic counterparts" (p. 619).

Williams (1997) wrote that typically preschool parents are concerned with four things:

- Is the place safe and pleasant?
- Does it 'fit' with family needs? (e.g., times of service, place, affordability, reliability)
- What will the child experience in terms of cultural support?
- Will the program prepare my child for school? (p. 4)

School Readiness

Carlton & Winsler (1999) described school readiness as a combination of being developmentally ready to learn specific material and being ready to be successful in a typical school context. The focus on school readiness has been present for many years. In 1994, President Clinton signed the Goals 2000: Educate America Act into law. The first goal of this law was that all children in America would start school ready to learn.

Ackerman & Barnett (2005) wrote that as a result of Goals 2000:

Readiness has received attention at the local, state, and federal levels. Although researchers, educators, parents, and policymakers agree that a child's future academic success is dependent on being ready to learn and participate in a successful kindergarten experience, the exact definition of readiness depends on who is doing the defining. (p. 2)

Teachers' Perceptions of Readiness

In a national survey of 3,305 teachers, Lin, Lawrence, and Gorrell (2003) discovered that the chief concern of kindergarten teachers' in regards to student readiness centered on their social behaviors in schools. Key findings from Lin et al.'s (2003) study included the most essential and least essential skills by percentage of teachers surveyed.

Most essential skills:

- tells wants and thoughts, 83.9%
- not disruptive of the class, 78.6%
- follows directions, 77.5%
- takes turns and shares, 73.6%

Least essential skills:

- counts to 20 or more, 14.6%
- knows most of the alphabet, 21.4%
- names colors and shapes, 32.3%
- uses pencil, brushes, 36.0%

Lin et al. wrote that these four items "are particularly salient in teachers' conceptions of readiness for school, especially when seen in comparison with the four academic items which very few teachers name as being very important or essential" (p. 233). Thus, Lin et al. (2013) conclude that the teachers they sampled clearly placed a higher emphasis on the social ability of children rather than their academic skills development.

Kindergarten teachers report that at least one-third of the children in kindergarten are not ready for school (Ackerman & Barnett, 2005). However, what constitutes readiness has been the topic of much debate among researchers, schools, and parents. In the past, school readiness was viewed as a developmental biological determinant rather than environmentally influenced (Ma, Nelson, Shen, & Krenn, 2015). Students were put through screeners to determine if they were ready to enter the school setting. Students scoring poorly on the screener were held out for an additional year which Ackerman & Barnett (2005) deem a questionable practice. More current practices in determining school readiness are brain-based and emphasize the importance of the child's environment. For example, children in homes where they are spoken to and read to on a consistent basis have more developed brain structures than children are not read to and spoken to (Ma et al., 2015).

Redshirting

One example of how parents handle their concern for their child's school readiness is the practice of "redshirting." Carlton & Winsler (1999) described redshirting as the delay of a child's entry to a school for one year during which time the child will have gained the necessary developmental skills to be successful in a school program. Parents typically instigate the redshirting process rather than the school district, especially for boys (Carlton & Winsler, 1999). According to Bassok and Reardon (2013), the most likely students to be redshirted in kindergarten are White male students coming from a high socioeconomic status. For parents from a lower socioeconomic status, waiting to enroll students in school can cause financial hardships because entering school allows parents to save on childcare and allows a primary caregiver to return to paid employment (Frey, 2005). The rate of students delaying kindergarten entry is far lower than previously thought. Bassok and Reardon (2013) estimated the figure to be 4% to 5.5% nationally.

The research has been mixed about whether redshirting is beneficial for students. One source for examining longitudinal data is the Early Childhood Longitudinal Study Kindergarten Class of 1998-1999 (ECLS-K). The ECLS-K is a nationally representative sample of approximately 21,000 children who entered kindergarten in the fall of 1998 (Malone, West, Flanagan, & Park, 2006). Findings from the ECLS-K indicate that by the end of first grade, "children whose kindergarten entry was delayed demonstrate slightly higher reading knowledge and skills than those who started on time" (Malone et al., 2006, p. 7). However, students who had a delayed entry in kindergarten were behind students

who begin kindergarten on time in mathematics at the end of first grade (Malone et al., 2006).

The Age Factor

Morrison, Albert, and Griffiths (1997) found that achievement levels of younger first graders were slightly below those of older first graders. However, Morrison et al. (1997) note that the same degree of difference was present at the beginning of first grade for older and younger first graders. Moreover, the degree of progress made by the younger first graders, given their starting point, was identical to that made by older students which meant that "the younger school entrants made a good year's worth of progress in reading and close to a year's worth of progress in math" (Morrison et al., 1997, p. 260). Kurdek and Sinclair (2001) concluded that young kindergartners may have lower abilities at the start of kindergarten, but they can "catch up" in their academic and social abilities by the end of the fourth grade.

Readiness Testing

Kindergarten readiness screening tests may be a factor in delayed enrollment. Schools sometimes use test results from the screening to discourage parents from enrolling some age-eligible children in kindergarten (Ackerman & Barnett, 2005). However, kindergarten readiness screening instruments do not favor students from low-income families and have been criticized by researchers as lacking predictive validity (Frey, 2005). Ackerman and Barnett (2005) found that over 35 screening tests are available to schools and districts. According to Ackerman and Barnett (2005), schools and districts should consider the following when selecting screening tests:

- Assessments should be used for their intended purpose, and should not be considered interchangeable.
- Good assessments will provide reliable information that can inform teachers' and school administrators' decisions. They should accurately reflect children's abilities, and be responsive to children's cultural and linguistic diversity.
- Assessments should also have adequate reliability for predicting children's future school success. (p. 5)

Socioeconomic Status

Record numbers of children are living in poverty. Garcia (2015) highlighted that one-fourth of all children in the United States are living in poverty while two-thirds of Black and Hispanic-English Language Learners (ELL) live in poverty. Researchers have consistently found that socioeconomic status has a statistically significant effect on kindergarten achievement (Pope, 2010; Wanless, McClelland, Tominey, & Acock, 2011; McKinney, 2013; Forry, 2013). On average, students from low-income homes start prekindergarten behind their peers in behavioral regulation while low income ELL students have the lowest growth rate of behavioral regulation (Wanless, McClelland, Tominey, & Acock, 2011). Moreover, children living in public housing have poorer health and education outcomes than children from higher socioeconomic statuses (Martens et al., 2014). However, Martens et al. (2014) went on to note that placing public housing units in neighborhoods with higher incomes was associated with improved outcomes for school-aged children and adolescents living in public housing. This notion led the authors to conclude that the socioeconomic status of a child's neighborhood/environment could possibly have a larger effect than household income.

Disparities associated with socioeconomic struggles can be reduced by enriching preschool quality; that enrichment becomes even more crucial when later schooling is likely to be of dubious or erratic quality (Bierman et al., 2014). Garcia (2015) noted that inequalities based on socioeconomic status are very significant and that "cognitive and noncognitive skills are least developed among those with the lowest socioeconomic status and sharply increase as one ascends the socioeconomic ladder" (p. 4). Forry et al. (2013) highlighted the importance of providing access to preschool centers and prekindergarten classes to families with low incomes to facilitate children's academic school readiness. Children who grow up in stressful environments benefit from access to safe daycares and preschools that provide healthier places to grow (Fischer, 2012).

In Barnett and Bellfield's 2006 study, they examined "how preschool education can enhance social mobility by enabling disadvantaged children to achieve as adults greater socioeconomic success than did their parents" (p. 74). They noted that three- and four-year-old students from low socioeconomic status attend preschool at higher rates than other students. However, the current programs still fail to enroll even half of economically disadvantaged three- and four-year-olds. Hispanic children and children of mothers who drop out of school are especially at risk and participate at relatively low rates. Based on their findings, Barnett and Bellfield (2006) hypothesized that increasing preschool investment could raise social mobility. Additionally, program expansions targeted to children from less privileged backgrounds would assist with movement up the social ladder, as would more universal policies from which disadvantaged children gain disproportionately. Barnett and Bellfield conclude that "increasing the educational effectiveness of early childhood programs would provide for greater gains in social

mobility than increasing participation rates alone...and if future expansions of preschool programs end up serving all children, society as a whole would gain" (p. 73).

Kindergarten Black-White Test Score Gaps

The gap between Black students and White students has been a topic of study among researchers for over 50 years. The landmark "Coleman Report" from 1966 explored the gap in scores between Black and White students. The authors found that the average minority student scored substantially lower on standardized tests (as much as one standard deviation below) at every grade level than the average White student (Coleman et al., 1966). Coleman et al. (1966) explained the factors that affected achievement of minority students:

- The achievement of minority pupils depends more on the schools they attend than does the achievement of majority pupils.
- Teacher quality seems more important to minority achievement than to that of the majority.
- A pupil's achievement is strongly related to the educational backgrounds and aspirations of the other students in the school.
- The principal way in which the school environments of Blacks and Whites differ is in the composition of their student bodies, and it turns out that the composition of the student bodies has a strong relationship to the achievement of Black and other minority pupils. (p. 22)

Black–White test score gaps narrowed considerably during the 1970s and 1980s before progress stagnated in the 1990s (Quinn, 2015). Condrón, Tope, Steidl, and Freeman (2013) attribute the persistent gaps between Black and White students on

continued segregation of schools. Condrón et al., (2013) highlighted that segregated schools are typically unequally resourced and that "schools with higher percentages of racial minority students are disadvantaged relative to predominantly White schools in terms of class sizes, school facilities, funding, and curricula" (p. 132). Whites are the dominant cultural group and typically have more resources than Blacks. When White and Black students attend separate schools, usually because of where they live, Whites are surrounded by students who have more nonschool resources while Black students are surrounded by students who have less nonschool resources (Condrón et al., 2013). Condrón et al., (2013) concluded that school segregation "intensifies group stratification by creating resource-rich educational environments for White students and resource-poor educational environments for Black students" (p. 132).

The most recent research into the Black-White achievement gap still finds a significant difference in how prepared Black and White students are when they begin school and how much they learn while in school. Quinn (2015) found that socioeconomic status explained all of the fall reading gap and 75% of the fall math gap. However, socioeconomic status could not explain why the gaps widened over the year (Quinn, 2015).

Garcia and Weiss (2014) summed up the Black-White achievement gap in their report on segregation on the kindergarten class of 2010. They wrote:

It has now been 60 years since the Supreme Court declared "separate but equal" schools unconstitutional in *Brown v. Board of Education*. We experienced two decades of school desegregation, coupled with a "war on poverty," that substantially narrowed race-based gaps during the 1970s and 1980s. However,

subsequent shifts in policies that led to increased segregation and inequality have resulted in ballooning income-based gaps and a virtual halt to progress on closing race-based gaps. (Garcia & Weiss, 2014, p. 2)

However, Garcia and Weiss (2014) did not uncover any causal links between segregation and performance and could not isolate impacts of factors such as poverty or family structure on student performance.

There is some evidence that for African American males, success in Kindergarten sets the stage for success in the later years of school (Davis, 2003). Baker, Cameron, Rimm-Kaufman, and Grissmer (2012) studied the extent to which early parenting style, home learning stimulation, and culturally relevant parenting can predict school readiness and classroom behavior in a sample of African American boys beginning Kindergarten. Baker et al. (2012) reported four major findings:

- Parenting style had an effect on reading achievement. Parents who created a structured routine such as a consistent bedtime had children with higher reading achievement.
- Home learning stimulation was associated with more positive outcomes in both reading and approaches to learning.
- Culturally relevant parenting (practices like discussing ethnic-racial heritage) had no link to reading achievement.
- Early parenting style and home learning stimulation predicted child outcomes above and beyond sociodemographic characteristics.

Head Start

Head Start, which was established under President Lyndon Johnson as part of his War on Poverty in 1965, provides access to high-quality education for over 1 million low-income children ages five and under annually (White House Council of Economic Advisors, 2015). According to the U.S. Department of Health and Human Services (USDHHS) (2010), Head Start is based on a whole child model. The whole child model provides comprehensive services to students that include preschool education; medical, dental, and mental health care; nutrition services; and positively influences the parenting practices of their parents. Head Start services are designed to be responsive to each child's and family's ethnic, cultural, and linguistic heritage (USDHHS, 2010). In addition, Head Start supports parents in being their child's first and most important teacher and advocate. Examples of such support include parent education classes, English-as-a-second-language courses, computer courses, health fairs, and referrals to social service agencies (USDHHS, 2010).

Over Head Start's 50 years of existence, a great deal of scholarship has been generated on its effects. The Head Start Impact Study, a comprehensive study, was commissioned by the Department of Health and Human Services under a Congressional mandate as part of the reauthorization of Head Start in 1998 (USDHHS, 2010). The goals of the study were to examine two research questions:

- What difference does Head Start make to key outcomes of development and learning (and in particular, the multiple domains of school readiness) for low-income children? What difference does Head Start make to parental practices that contribute to children's school readiness?

- Under what circumstances does Head Start achieve the greatest impact? What works for which children? What Head Start services are most related to impact? (p. xiii).

The Head Start Impact Study found that students attending Head Start had more positive experiences than the control group on nearly every measure of quality in use with early childhood research. However, by the end of 1st grade, there were few significant differences between the Head Start group as a whole and the control group (USDHHS, 2010). On the other hand, Lee et al. (2014) argued that the USDHHS study, among others, has a design flaw in that the reference group is not well defined. This vagueness in definition can obscure the effects and could help explain why studies from different periods or areas produced inconsistent results. Lee et al. (2014) conducted a rigorous study comparing well defined reference groups and found that:

Head Start participants had higher early reading and math scores than children in other nonparental care or parental care but also higher levels of conduct problems than those in parental care. Head Start participants had lower early reading scores compared with children in prekindergarten and had no differences in any outcomes compared with children in other center-based care. Head Start benefits were more pronounced for children who had low initial cognitive ability or parents with low levels of education or who attended Head Start for more than 20 hr per week. (p. 202)

Halle, Hair, Wandner, and Chien's (2012) findings suggested that "investing in professional development for Head Start teachers and supporting other quality improvement initiatives that include Head Start classrooms are critically important for

supporting low-income children's school readiness and ongoing development" (p. 624). One such intervention that focuses on professional development for Head Start teachers is the Research-Based, Developmentally Informed (REDI) intervention. Bierman et al. (2014) described the strategy behind REDI as taking advantage Head Start's plethora of locations to improve Head Start's impact on school readiness. This was accomplished by bringing about improved curriculum, teaching practices, and instructional materials. Bierman et al., (2014) found that the sustained main effects of REDI were found in multiple behavioral domains (social problem solving, learning engagement, reduced aggression at home and school). Moreover, moderated effects (on social competence and reduced attention problems) were amplified among children who attended low-achieving schools (Bierman et al., 2014).

Universal Screening

One of the most pervasive ways that schools and educators measure student achievement and progress school wide is through universal screening. Prekindergarten students and students up to secondary schools participate in this screening. The results of school wide screening are used for a variety of purposes. Universal screening is the first step of the Response to Intervention (RTI) process in identifying the students who may have current and future learning struggles (Mellard, McKnight, & Woods, 2009). The Center on Response to Intervention (n.d.) defines RTI as a three-tiered, proactive prevention system with different degrees of intensity at each tier. The idea is to implement research-based interventions with students at varying intensities to ensure all avenues have been exhausted before referral for a comprehensive assessment for special education services. Tier one represents the class-wide level in an RTI framework wherein

all students should receive high-quality and evidence-based instruction. Kuo (2014) noted that "most students (80%) in the general classroom will make adequate progress with the support of high-quality instruction, differentiated instruction, or some forms of accommodations in the general classroom" (p. 611). Tier two includes research-based interventions with moderate intensity (2-3 sessions per week). Tier three is the highest level and includes individualized interventions of increased intensity for students who show little response to tier two interventions. At all tiers, teachers and other school staff should ensure interventions are being implemented with fidelity and with consideration of cultural and linguistic responsiveness (Center on Response to Intervention, n.d.).

Summary

The research outlining the benefits of preschool and prekindergarten is voluminous. Effects have been consistently demonstrated ranging from the long-term economic benefits (White House Council of Economic Advisors, 2015) to the large effect prekindergarten has on school readiness (Weiland, 2011). A multitude of researchers have consistently found that attending some variation of preschool leads to better readiness for kindergarten (Barnett & Belfield, 2006; Gormley & Phillips, 2005; Zhai, Waldfogel, & Brooks-Gunn, 2013; Pope, 2010). Minority students and students from a low socioeconomic background particularly benefit from academic experiences prior to beginning elementary school (Cunningham, 2010).

CHAPTER III - METHODOLOGY

In order to address the need for further study of school prekindergarten opportunities for young children, two different sets of data were collected, examined, and discussed. Literacy proficiency was measured by using data from the Mississippi K-3 Assessment Support System's (MKAS²) Kindergarten Readiness Assessment (KRA). Social competence was measured using the Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System (BASC-3 BESS).

Research Questions

The following research questions will be addressed:

- a. Is there a significant difference in literacy among kindergarten students who participated in a public school based prekindergarten as compared to their peers without public schoolprekindergarten as identified on the KRA?
- b. Is there a significant relationship between the social competence of kindergarten students based on preschool setting type as identified on the BASC-3 BESS?
- c. Is there a significant relationship between literacy and social competence of kindergarten students based on preschool setting experience?

Participants

Participants in this study were 358 kindergarten students from 10 elementary schools in a coastal school district. Out of the total population for this study, 88 students participated in a public prekindergarten program, 111 students participated in a Head

Start program, 66 students participated in a private daycare or preschool, and 93 students were in a home setting. The researcher utilized anonymized, de-identified data from the schools.

Instruments

Each kindergarten student participates in the Mississippi K-3 Assessment Support System's (MKAS²) Kindergarten Readiness Assessment (KRA) three times per year. The state's department of education contracts with Renaissance Learning to provide the KRA for kindergarteners statewide using its STAR Early Literacy assessment. According to Renaissance Learning (2014), the STAR Early Literacy assessment consists of 27 items. The computer based assessment takes approximately ten minutes for each student to complete. KRA is adaptive to each student's performance. As a student completes each question, the content and difficulty level is customized based on their performance of the previous question and level of success. Renaissance Learning calculates its internal consistency reliability coefficient at .80 for kindergarten students taking the STAR Early Literacy assessment.

The Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System (BASC-3 BESS) is the second assessment that will be used in this study. Pearson Clinical (2018) describes the BASC-3 BESS as a reliable and systematic way to screen students for emotional and behavioral strengths and weaknesses. The BASC-3 BESS was normed on a sample that is reflective of the most recent population characteristics of the United States Census.

The BASC-3 BESS is a checklist that is completed by teachers three times per year for each kindergarten student. Teachers receive district level training at the start of

each school year that is provided by both school administrators and district level behavior specialists. Each student is scored by a teacher, or team of teachers, who directly interacts with the student on a daily basis with an awareness of his/her behavioral functioning. The form consists of a 20 item-checklist that is scored by the teacher. Based on the outcome of the teacher responses, students are placed in one of three categories: normal, elevated, or extremely elevated risk.

Procedures

The MKAS² serves as universal screening for academics for all kindergarten students and the BASC-3 BESS serves as universal screening for behavior for all kindergarten students. In the schools at which this study took place, these screenings occur in the fall, winter, and spring. This study focused on the spring 2018 administration. All enrolled kindergarten students participated in the Spring 2018 MKAS² and were scored in the Spring 2018 window using the BASC-3 BESS. The researcher received written consent from the school district superintendent to gain access to the de-identified data. In order to ensure confidentiality of student identities, the assistant superintendent's designee assigned a student number in place of each student's name. All data was kept confidential by utilizing a password-protected computer.

Variables

The dependent variable in this study was the literacy results on the MKAS² of kindergarten students in ten elementary schools in a coastal school district. Four independent variables were evaluated for their influence in this study. The independent variables are as follows:

1. Level of prekindergarten - Home, Head Start, Public School
Prekindergarten, Private Day Care
2. Social competence - as indicated on the BASC-3 BESS
3. Ethnicity of kindergarten student
4. Gender

Data Collection Procedures

An Institutional Review Board (IRB) approval request was submitted before the study was carried out. The IRB determined that IRB review is not required because the data was archival data and no human subjects were involved.

Data was collected via a digital spreadsheet file containing de-identified student information along with the scores for the academic and behavior screening. The digital spreadsheet file also included level of prekindergarten, student ethnicity, and gender.

Analysis

This study utilized an ex post facto design. Archived data from the MKAS² and the BASC-3 BESS were entered in the Statistical Package for the Social Sciences (SPSS) and appropriate statistical tests were run.

To examine whether a significant difference in literacy based on preschool attendance exists, a one-way analysis of variance (ANOVA) was conducted. The benefit of using an ANOVA is that it allows the researcher to compare multiple groups and decreases the chance of Type 1 error rates. ANOVA tests assume independence of cases, normal distributions, and homoscedasticity.

To examine whether a significant relationship exists between social competence and location of preschool services in which a student participated (home, public school

based prekindergarten, Head Start, or daycare) was directly answered using Chi Square. The benefit of using Chi Square in this situation is that it is a non-parametric test that is used to determine if the null hypothesis is confirmed (Privitera, 2012). A Chi Square test assumes that each participant's response will be limited to a single score.

To examine whether a significant relationship exists between literacy and social competence of kindergarten students based on prekindergarten experience, a multiple regression analysis will be run. Multiple regression is an appropriate test to answer this question because the researcher can examine more than one variable and predict changes in a criterion variable. The multiple regression analysis will help the researcher predict whether or not prekindergarten experience impacts social and academic success.

CHAPTER IV – RESULTS

Chapter four provides an overview of the results of the study. The purpose of this quantitative study was to compare literacy performance and social performance of students who come from a variety of preschool settings to students who participated in a public prekindergarten program. This study was needed due to the policy and legislative trends focusing on prekindergarten experiences and the desire of school districts to have better prepared kindergartners entering the public school arena. Chapter four is organized by descriptive statistics, statistical results providing answers to the research questions, and ancillary findings.

Descriptive Statistics

The study consisted of the literacy scores and social scores of 358 kindergarten students enrolled among 10 elementary schools in a coastal school district. The school district has a 100% free/reduced lunch rate meaning every student receives a free breakfast and lunch. Of the 358 students included in the study, 201 students were female (56.1%) and 157 students were male (43.9%). Table 1 gives an overview of the students based on their reported race/ethnicity. Table 2 gives a breakdown of the location of preschool services in which a student participated.

Table 1

Race/Ethnicity of Sample

	Frequency	Percent
American Indian	3	.8
Asian	4	1.1
African American	161	45.0
Hispanic/Latinx	69	19.3
White	121	33.8
Total	358	100.0

Table 2

Preschool Type

	Frequency	Percent
Daycare	66	18.4
HeadStart	111	31.0
Home	93	26.0
Public School Prekindergarten	88	24.6
Total	358	100.0

Research Questions

Research question one regarding literacy skills development based on location of preschool services in which a student participated was answered by conducting a one-way analysis of variance (ANOVA). There was no significant difference in the students' literacy scores based on the location of preschool services in which a student participated for the four conditions [$F(3, 354) = 3.511, p = 0.16$]. Taken together, these findings indicate that students who attended a public school based prekindergarten did not perform at a significantly different level by the end of kindergarten than students who attended a nonpublic school based prekindergarten.

Research question two sought to determine whether there was a significant difference between social competence and location of preschool services in which a student participated. A Pearson Chi-Square was completed using the student scores on the BASC 3 BESS and what location of preschool the students attended, $X^2(6, N = 358) = 5.69, p > .05$. These findings indicate that there was not a significant relationship between the social competence of students based on location of preschool services.

Research question three sought to determine whether there was a significant relationship between literacy and social competence of kindergarten students based on prekindergarten experience. A Multinomial Logistic Regression was used to analyze predictors for students based on whether they attended a public school prekindergarten, HeadStart, home, or traditional community daycare and the interaction between their literacy scores and their social competence ratings. The reference category for the outcome variable was public school prekindergarten. Each of the other three categories of preschool locations was compared to this reference group. The main interest of current analysis was focused on the relationship between the location of preschool services in which the student participated and their literacy and social competence. The results found no statistically significant predictors based on the location of preschool setting in which the student participated.

Table 3

Results of Multinomial Logistic Regression

Variable	Daycare		HeadStart		Home	
	OR (95% CI)	SE	OR (95% CI)	SE	OR (95% CI)	SE
Literacy Scores	1.00(.99/1.01)	.00	.99(.99/1.00)	.00	.99 (.99/1.00)	.00
Normal Risk	47710691.72 (12055551.75/1888 18409.2)	.70	.40 (.04/3.90)	1.17	.56 (.05/6.36)	1.24
Elevated Risk	5861123.47 (5861123.47/57611 23.47)	.00	35 (.07/10.27)	1.27	.55 (.04/8.05)	1.37
Extremely Elevated Risk						

Note. Reference group: Public School Prekindergarten. OR = Odds Ratio. SE = Standard Error. 95% CI = Confidence Interval

Ancillary Findings

The Kindergarten Readiness Assessment, administered using Renaissance Learning’s Star Early Literacy platform, assigns a scaled score to students based on their KRA assessment results. Renaissance Learning has developed three literacy classifications as an easy way to monitor student progress--Emergent Reader, Transitional Reader, and Probable Reader. Renaissance Learning (2017) defines these classifications as:

Early Emergent Reader (300–487): Student is beginning to understand that printed text has meaning. The student is learning that reading involves printed words and sentences, and that print flows from left to right and from the top to the bottom of the page. The student is also beginning to identify colors, shapes, numbers, and letters.

Late Emergent Reader (488–674): Student can identify most of the letters of the alphabet and can match most of the letters to their sounds. The student is also beginning to “read” picture books and familiar words around the home. Through repeated reading of favorite books with an adult, students at this stage are building their vocabularies, listening skills, and understandings of print.

Transitional Reader (675–774): Student has mastered alphabet skills and letter-sound relationships. The student can identify many beginning and ending consonant sounds and long and short vowel sounds, and is probably able to blend sounds and word parts to read simple words. The student is also likely using a variety of strategies to figure out words, such as pictures, story patterns, and phonics.

Probable Reader (775–900): Student is becoming proficient at recognizing many words, both in and out of context. The student spends less time identifying and sounding out words, and more time understanding what was read. Probable readers can blend sounds and word parts to read words and sentences more quickly, smoothly, and independently than students in the other stages of development. (Renaissance Learning, 2017)

When a one-way ANOVA was conducted comparing the location of preschool services to Renaissance Learning's literacy classifications, a statistically significant difference was found at the $p < .05$ level for the four conditions [$F(3, 354) = 2.69, p = 0.05$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the home condition ($M = 2.09, SD = 0.87$) was significantly lower than the traditional daycare condition ($M = 2.45, SD = 0.71$). However, the public school prekindergarten ($M = 2.20, SD = 0.82$) did not significantly differ from the home, daycare, or Head Start conditions. The mean score of the students who were home for preschool setting was the lowest. Taken together, these results suggest that having some sort of preschool experience outside of the home leads to being identified as being in a higher achieving reading classification. Specifically, the results suggest that when students go to a traditional daycare rather than staying at home, they are more likely to be in a higher literacy classification.

Of the 88 students in the public school prekindergarten program, 35 students (39.8%) were of Hispanic/Latino descent. However, in the overall study including all 358 students, there were only 69 students (19.3%) of Hispanic/Latino heritage. This means that Hispanic/Latino students were overrepresented in the public school prekindergarten program. Table 4 gives the mean scaled score by each racial subgroup. Hispanic students who attended public school prekindergarten had a higher mean scaled score than students who attended other types of preschool settings.

To compare African American students' literacy scaled scores on the KRA based on what location of preschool services in which the student participated, a one-way ANOVA was conducted. There was a significant difference in literacy scores based on

location of preschool services for the four conditions [$F(3, 157) = 4.502, p = 0.005$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the public school prekindergarten participation of African American students ($M = 780.28, SD = 67.65$) was significantly higher than being at home before beginning kindergarten ($M = 695.44, SD = 135.99$).

Additionally, there was a significant difference between African American students who were at home before beginning kindergarten and those students who attended any of the three locations taken together ($M = 769.48, SD = 76.35$). However, the public school based prekindergarten ($M = 780.28, SD = 67.65$) did not significantly differ from the Head Start or daycare preschool options. Taken together, these findings indicate that African American students who attended a public school based prekindergarten did perform at a statistically significant difference by the end of kindergarten than students who were at home before attending kindergarten. Moreover, African American students who attended a public school prekindergarten had the highest mean average on the KRA among all students in the public school prekindergarten.

Table 4

Literacy Scaled Scores

Preschool Type	Race	Mean Score	N
Public School Prekindergarten	Asian	657.0000	1
	African American	780.2800	25
	Hispanic/Latino	733.7143	35
	White	720.4815	27
	Total	742.0114	88
Other Preschool Settings	American Indian	695.3333	3
	Asian	806.6667	3
	African American	728.3235	136
	Hispanic/Latino	701.2647	34
	White	745.4787	94
	Total	731.3926	270
Total	American Indian	695.3333	3
	Asian	769.2500	4
	African American	736.3913	161
	White	739.9008	121
	Total	734.0028	358

CHAPTER V – DISCUSSION

Introduction

This study's primary purpose was to discover if there were statistically significant differences in the literacy achievement and/or the behavioral rating of teachers based on the location of preschool services in which the students participated as measured by the Kindergarten Readiness Assessment and the Behavior Assessment System for Children, Third Edition Behavior and Emotional Screening System (BASC-3 BESS). This chapter consists of a summary of the procedures, review of the findings, conclusions, and recommendations for further study.

Summary of Procedures

The key data for this study were obtained from archival data on 358 students who participated in the Kindergarten Readiness Assessment, who were scored by their teacher on the BASC-3 BESS, and their location of preschool services (home, daycare, HeadStart, or public school prekindergarten). These 358 students attended 10 elementary schools in a coastal region.

To examine whether statistically significant differences existed between literacy skills and location of preschool services, a one-way analysis of variance (ANOVA) was conducted. To examine whether a significant relationship exists between social competence and location of preschool services (home, public school prekindergarten, HeadStart, or daycare) was directly answered using Chi Square. A Multinomial Logistic Regression was used to analyze predictors for students based on whether they attended a public school prekindergarten, HeadStart, home, or traditional community daycare and the interaction between their literacy scores and their social competence ratings

Before the study was completed, the superintendent of the schools involved granted permission to the researcher. Additionally, the University of Southern Mississippi's Institutional Review Board found that it did not need to grant permission as this was using archival data (see Appendix A). The school district provided data on literacy scores on the Kindergarten Readiness Assessment, data from teacher scored behavioral risk ratings from the BASC-3 BESS, and the location of preschool services in which a student participated before attending kindergarten. These data sources were compiled and analyzed. In order to protect the student identities, the data were de-identified and given a student number.

Summary of Findings

The differences between the variables and location of preschool services in which a student participated were found to be inconsistent with previous studies and not statistically significant. While the findings were not statistically significant, students who attended traditional community daycares had a higher scaled score average on the KRA. Moreover, the differences in behavioral risk assessment screening were not statistically significant based on the location of preschool services in which a student participated.

Summary of Ancillary Findings

Hispanic students who attended public school prekindergarten had a higher mean scaled score than students who attended other types of preschool settings. African American students who attended a public school based prekindergarten did perform at a statistically significant difference on the KRA by the end of kindergarten than students who were at home before attending kindergarten. Moreover, African American students

who attended a public school prekindergarten had the highest mean average on the KRA among all groups.

Discussion

Research question one sought to determine if a significant difference in literacy achievement at the end of kindergarten between students who attended a public school prekindergarten and students who participated in traditional daycare, Head Start, or were home for their preschool education. There were no significant differences found for students who attended the more rigorous public school prekindergarten programs. One possible explanation is that clearly articulated standards have been developed for children ages 3-5 in nearly all states (Stipek, 2006). That means that quality of community and church preschools/daycares may have been improving relative to public school prekindergarten. Moreover, the finding that students who attended traditional community daycares had a higher scaled score average on the KRA reinforces the aforementioned point of improving quality. Additionally, Skibbe et al. (2013) found that children demonstrate similar amounts of growth in prekindergarten and kindergarten which could lead to the explanation of students in daycare, Head Start, and public school preschool not performing at statistically significant levels.

Research question two sought to determine if students presented at the normal risk level, elevated risk level, or the extremely elevated risk level depending on the preschool setting in which they participated before entering kindergarten. The results of completing a Pearson Chi-Square did not yield results at the statistically significant level. However, there were limitations in the study based on the lack of a significant amount of students who were scored at the elevated or extremely elevated risk levels. Out of 358 students in

the study, 324 were scored in the normal range, 28 were scored in the elevated risk range, and 6 were scored in the extremely elevated risk range. These findings can be interpreted as a vast majority of the students entering and achieving at the normal risk range for behavioral/social concerns as scored by the teacher. Again, this could be attributed to the increase in quality and standards at daycares, Head Start facilities, and public school prekindergartens and is consistent with the results of other studies that find that the skills for regulating one's own behavior can be taught especially to preschool aged children (Fischer, 2012; Diamond et al., 2007).

Research question three sought to determine whether there was a significant relationship between literacy and social competence of kindergarten students based on prekindergarten experience. A Multinomial Logistic Regression was used to analyze predictors for students based on whether they attended a public school prekindergarten, HeadStart, home, or traditional community daycare and the interaction between their literacy scores and their social competence ratings. The results found no statistically significant predictors based on the location of preschool services in which a student attended. These findings suggest that the location of preschool services in which a student participated was not a good predictor for how the students would perform academically or socially.

Discussion of Ancillary Findings

The Kindergarten Readiness Assessment that all students in the study participated in ranks students one of three categories—Emergent Reader, Transitional Reader, and Probable Reader. When a one-way ANOVA was conducted comparing the location of preschool services to Renaissance Learning's literacy classifications, a statistically

significant difference was found at the $p < .05$ level for the four conditions [$F(3, 354) = 2.69, p = 0.05$]. These results could indicate that there are some differences in literacy classification depending on the setting of preschool services. Taken together, these results suggest that having some sort of preschool experience outside of the home leads to being identified as being in a higher achieving reading classification. Specifically, the results suggest that when students go to a traditional daycare rather than staying at home, they are more likely to be in a higher literacy classification. This could be explained by the dearth of high quality texts and vocabulary rich conversations that may be lacking in many lower socioeconomic homes (Stahl & Yaden, 2004). Moreover, the research has consistently found that attending some kind of preschool leads to better readiness for kindergarten (Barnett & Belfield, 2006; Gormley & Phillips, 2005; Zhai, Waldfogel, & Brooks-Gunn, 2013; Pope, 2010).

Hispanic students made up a disproportionate number of students who participated in the public school prekindergarten as compared to the total sample. The Hispanic students who participated in the public school prekindergarten had a higher mean literacy scale score than their Hispanic peers who participated in other preschool settings. This could indicate that high level of academic rigor available at a public elementary school is beneficial to the literacy education of students of Hispanic background. An additional consideration is that many of the Hispanic students come from homes where English is not the first language. This makes it even more crucial that Hispanic students participate in high quality preschool education. Peisner-Feinberg et al., (2015) found that children who were Spanish-speaking dual language learners

participating in a public prekindergarten program showed gains on all English literacy skills and showed growth in Spanish literacy skills.

Similar to students from a Hispanic background, African American students who participated in some sort of preschool setting outside of the home had higher literacy scaled scores on the KRA than their African American peers who were at home for preschool. The mean score for the public school prekindergarten participation of African American students ($M = 780.28$, $SD = 67.65$) was significantly different than being at home before beginning kindergarten ($M = 695.44$, $SD = 135.99$). Moreover, African American students who attended a public school prekindergarten had the highest mean average on the KRA among all races/ethnicities who participated in public school prekindergarten. Research into the Black-White achievement gap finds that much of the gap is due to socioeconomic status and the segregation of communities and schools into racial groups leading to unequal allocation of resources (Garcia & Weiss, 2014). However, the results from this study demonstrate that when an even playing field is offered (e.g., public school prekindergarten) among a diverse group of students (see Table 4), that African American students can perform at a comparable level to all other students. In fact, the African American students who participated in this study outperformed the Hispanic and White students on the KRA.

Conclusions

The purpose of this study was to examine the efficacy of prekindergarten when funded and supported by a local school district. Proponents of prekindergarten tout the fact that school prekindergarten programs lead to greater outcomes for students in later elementary and secondary educational careers (Garmon, 2013; Gormley & Phillips, 2005;

Skibbe, Hindman, Connor, Housey, & Morrison, 2013). On the surface, it would be reasonable to conclude that additional investment in public school prekindergarten is not necessarily warranted. All three of the research questions did not find statistically significant differences based on the preschool settings that kindergarten students attended. However, when delving deeper into the ancillary findings, significant differences were discovered and discussed. The superior performance of African American students cannot be overlooked. Also, the performance of public school prekindergarten Hispanic students, while not statistically significantly different, was also at a higher literacy level than Hispanic students who did not attend public school prekindergarten. Moreover, numerous studies have concluded that participating in public school prekindergarten has led to statistically higher performance (Garmon, 2013; Pope, 2010).

Two-thirds of African American and Hispanic English Language Learners live in poverty in the United States compared to one-fourth of all children (Garcia, 2015). Disparities associated with socioeconomic struggles can be reduced by enriching preschool quality (Bierman et al., 2014). With the existence of many gaps in the kindergarten literacy achievement of students of color, the public school prekindergarten served as an accelerator to the learning of the African American and Hispanic students in this study. The lasting effects of a jumpstart like the one that the Hispanic and African American students received from the public school prekindergarten are many. Students who have a head start in Kindergarten are linked to less tax dollars spent on the juvenile/criminal justice systems, less tax dollars spent on special education services,

increased tax revenues from earning higher incomes, and decreased reliance on entitlement programs (Center on the Developing Child, 2007).

The effects of a high quality start to kindergarten go beyond the kindergarten year. Garmon (2013) studied the effects of a high quality universal prekindergarten on students of all backgrounds and found that children who participated in public prekindergarten scored higher on the 3rd grade Georgia state reading test than children who attended private preschool programs or children who did not attend prekindergarten programs.

Limitations

Several limitations were apparent in this study. First, while the study was conducted using data from 10 schools, it was confined to a single school district. This limits the generalizations that can be made to populations that have similar demographics and geography. Next, students move within the district and out of the district at a high rate. With 7 elementary schools in one city of the district and 3 elementary schools in the other city of the district, transience is an issue. Additionally, the design of the student was limited to social competence and literacy achievement. While those two factors can be crucial components of kindergarten and further school success, there are many other variables that could have an impact on school success. Finally, out of 358 students in this study only 33 students were scored at elevated risk or extremely elevated risk on the BASC3-BESS. This led to a lack of data in which to draw conclusions from based on the score the teachers assigned the students on this social/behavioral screener.

Recommendations for Practice

With the increasing expectations on kindergartners under the Common Core State Standards and other state specific standards, access to high-quality prekindergarten instruction has become imperative for student success in kindergarten and beyond. Proponents of prekindergarten tout the fact that school based prekindergarten programs lead to greater outcomes for students in later elementary and secondary educational careers (Garmon, 2013; Gormley & Phillips, 2005; Skibbe et al., 2013). However, not all families have the resources required to enroll their students in a high quality preschool program. The findings of this study demonstrated that students who participated in traditional community daycare (which may be a significant cost to families) had a higher mean score on the KRA at the end of kindergarten than students who attended all other settings of preschool before entering kindergarten. However, students who participated in the completely free public school prekindergarten had a non-significant difference in mean scores on the KRA than students who participated in a traditional daycare setting. For policy makers, this could indicate a need for additional funding to ensure students have access to a high quality preschool program. The avenue in which the additional funding is allocated could be better determined by further study into the efficacy of public school prekindergarten as compared to other preschool settings.

Recommendations for Future Study

Based on the results of this study, the recommendations for future study are as follows:

1. With the introduction of standardized-test-based promotion common in 3rd grade in several states, a longitudinal study should be carried out to

determine whether the students who participated in a public school prekindergarten program performed at a statistically significantly different level than their peers who did not attend a public school prekindergarten.

2. This study should be replicated across other schools and districts in other areas of the country. This would give policy makers and researchers additional results to compare the effects of public school prekindergarten and make evidence based decisions.
3. A larger sample size to pull data from would lead to being able to draw more conclusions based on the social competence data that was lacking in this study due to a lack of elevated and extremely elevated risk levels of students.

Summary

The purpose of this study was to examine the efficacy of prekindergarten when funded and supported by a local school district. Proponents of prekindergarten tout the fact that school prekindergarten programs lead to greater outcomes for students in later elementary and secondary educational careers (Garmon, 2013; Gormley & Phillips, 2005; Skibbe, Hindman, Connor, Housey, & Morrison, 2013). All three of the research questions did not find statistically significant differences based on the preschool settings that kindergarten students attended. However, when delving deeper into the ancillary findings, significant differences were discovered and discussed.

Despite the presence of limitations in this study, recommendations for practice were articulated which include allocation of additional resources to allow students from a low socioeconomic background to utilize high quality preschool services.

Recommendations for further study were outlined including a longitudinal study using these students performance in later grades on state testing, replicating or conducting a similar study in a different geographical area of the country, and replicating or conducting a similar study with a larger sample size in order to draw conclusions using data on social/behavior competence.

APPENDIX A –IRB Review Not Required Letter



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Feb. 11, 2019

To Whom It May Concern,

Acting on behalf of The University of Southern Mississippi Institutional Review Board, in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University guidelines, I have reviewed the following project and have determined that review by USM's IRB is not necessary.

Principal Investigator: Stewart Smirthwaite

Title: "The Effects of School-Based pre-Kindergarten"

Date Submitted: Nov. 27, 2018

Formal IRB review is not required in this instance, as the project does not meet federal or institutional definitions of "human subjects research."

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel V. Bruton", is written over a light red rectangular background.

Samuel V. Bruton

Director of the Office of Research Integrity

APPENDIX B – Superintendent Permission Letter

Stewart Smirthwaite
3501 Tyler St
Ocean, Springs, MS 39564
December 11, 2018

Mr. Rodolfich
Superintendent
Pascagoula-Gautier School District
1006 Communny Ave
Pascagoula, MS 39567

Dear Mr. Rodolfich:

I am Stewart Smirthwaite, a doctoral candidate at the University of Southern Mississippi. I am conducting research on the effects of public school-based pre-kindergarten programs on kindergarten literacy achievement and social development. I am requesting your written permission to collect archival data from the Spring 2018 MKAS Kindergarten Readiness Assessment and the archival data from Spring 2018 BASC-3 BESS on each kindergarten student. The school district will have access to the results of this research project.

This project will be reviewed by the USM Institutional Review Board which ensures that research projects follow federal regulations. Questions or concerns regarding the rights of research subjects should be directed to the chair of the IRB, The University of Southern Mississippi, 118 College Dr. #5147, Hattiesburg, MS 39406, (601)266-6820.

With your permission, the data will be collected from the office of the assistant superintendent for elementary education. If you consent to have this information shared with me, please sign and date the enclosed consent form and return it in the self-addressed stamped envelope.

Thank you for your consideration and I am happy to answer any questions you may have via email at stewart.smirthwaite@usm.edu or via phone at (228)327-5116.

Sincerely,



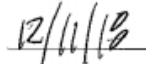
Stewart Smirthwaite
Doctoral Candidate
The University of Southern Mississippi

Consent to Utilize Pascagoula-Gautier School District Archival Data

As superintendent of the Pascagoula-Gautier School District, I give Stewart Smirthwaite permission to conduct educational research utilizing archival data from the assistant superintendent's office. This research will be conducted on the effects of public school-based pre-kindergarten programs. I understand that data gathered will be used to determine public school-based pre-kindergarten programs and that confidentiality will be maintained. No individual student name will be identified on any of the reports. The only identifying marks on the reports are a code that identifies the preschool history and ethnicity of the child. The school district's name will not be revealed in the final dissertation. The district will be referred to as a coastal school district.



Superintendent's Signature



Date

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